REMARKS

The Examiner rejected claims 1-8 as being anticipated by Markham, U.S. Patent Registration No. 1,825,912 and claims 1-5 as being anticipated by Abraham et al., U.S. Patent Registration No. 4,763,878. Applicant respectfully disagrees and presents the following arguments.

The present invention relates most specifically to a latch that can be utilized to rapidly and securely attach U-heads by hand to concrete shoring towers. The invention overcomes difficulties such as loose pieces and time consuming preparations that are known in the art. The rapid attachment and release of the U-head to the concrete shoring tower is accomplished by the latch design of the present invention and therefore independent claims 1 and 8 of the present patent application have been amended to narrow the scope of the claims and to better identify hand releasable latch of the present invention.

The latch of the present invention includes a spring that biases the latch so that the tongue of the latch is forced inward through a notch in the L-shaped extension of the shoring post. The tongue of the latch is able to slide along the edge of the base plate until engagement with the notch in the base plate, and due to the force of the spring the tongue becomes instantly engaged when it encounters the notch. In order to disengage the U-head assembly pressure is applied by hand to the outside end of the latch causing the spring to allow the tongue to disengage from the notch and the removal of the U-head assembly from the shoring post. This present invention utilizes a minimum of moving parts, specifically one, and eliminates the need for loose parts. It also does not require any special tools to attach and is easy to operate because it is able to self-engage with the

notch and may disengage with a reasonable amount of pressure applied by hand.

The Examiner cited Markham, U.S. Patent Registration No. 1,825,912, as a prior art reference, the Applicant respectfully disagrees. Markham discloses a shore head bracket having a plate formed on the vertical post with inwardly inclined portions that are engageable by opposed inclined portions so that the inclined portions form a wedge when the plate is driven downward. The plate is slidable along pins that guide its movement up or down only within a defined vertical slot in the adjacent bar so that the bracket does not rotate thus not allowing for engagement between the inclined portions. The lower end of the bracket is formed with a head, which is adapted to receive blows of a hammer used to drive the plate into clamping relation, which is the wedge force; in clamping relation the bracket may be further secured by a nail driven through a hole in the plate. This reference defines many of the difficulties of the prior art that the present invention overcomes.

The Markham reference discloses the use of a bracket that uses guide pins to guide the bracket when hammered into clamping relation on the shoring post and further teaches the driving of a nail through an opening to ensure the securement. The invention necessitates a hammer or tool in order to engage and disengage the bracket which is unlike the present invention's claims in which the attachment and removal is hand releasable. The Examiner further asserts that the patent contains a latch shown in the disclosure as 15 and 16. Applicant respectfully points out that number 16 in the Figures and disclosure does not refer to a latch, instead it indicates the guide pins that protrude from a vertical slot to direct the sliding movement as the assembly is hammered. Furthermore, number 15 is not a latch either. The Figures and the disclosure teach that number 15 references the inclined portion capable of engaging with the inclined portion

of the plate. The present invention teaches a method of securement utilizing a latch and a notch, with the latch engaging the notch during attachment. Webster's Dictionary defines a latch as "consisting basically of a bar falling or sliding into a catch, groove, hole, etc," and a notch is defined as an "angular or V-shaped cut, indentation, or slit in an object, surface, or edge." The two inclined portions of the Markham patent, ramp like in appearance, do not constitute a latch as stated by the examiner and there is no disclosure in the patent relating to a notch. Instead, the inclined portions act like a wedge as they are hammered into position, thus causing the opposing wedges to push against each other and force the plate against the beam which retains the bracket. This method is unlike that of the present invention and as stated in the background of the present invention, this method utilizes tools that are needed for attachment and are time consuming. The cited reference is described in the present invention as one of the problems that the inventor is trying to overcome due to the known difficulties of use in the field. In order to better distinguish this described difference between the two inventions the Applicant has amended the application's claims to include the hand releasable feature of the present invention, therefore, it is respectfully requested that the Examiner remove this reference as prior art.

The second reference cited by the Examiner as anticipating the present invention, is Abraham et al., U.S. Patent No. 4,763,878. The reference relates to an apparatus for jacking basement walls that have moved out of alignment. Looking at Figure 2, the cited reference is not only in a different field of art but also does not disclose a latch providing for hand releasable attachment and removal, or include a base plate, latch, or notch. The present invention, for use with shoring posts, has been designed to minimize the number

of moving parts, and does so by disclosing a single latch for attachment, the single latch attachment mechanism now having been included in the amended independent claims. The cited reference discloses a horizontal jacking mechanism and demonstrates in the figure many loose parts that are visible and would not only create a problem if lost but also require the use of tools in order to assemble. The jack member of the invention is slidably attachable to the two wall braces; however, in the disclosure 'slidably' is taught as having bolts threaded through the sides of the channel and tightened in order to prevent the jack assembly from sliding to the floor, unlike the present invention which uses 'slidably' to describe the form of rapid attachment that easily allows for the sliding of the bracket as taught in the disclosure.

Furthermore, the Applicant's invention claims a U-head plate having a channel for capturing the base plate, and a latch attached to the U-head plate for engaging the notch in the base plate upon the capture of the base plate within the channel. To this end the Abraham et al. patent does not disclose a latch or a notch. The Examiner refers to the bolt (70) of the patent as a 'latch'. However, as stated above, latch is defined as "a bar falling or sliding into a catch, groove, hole, etc," which is unlike the patent that consists of a bolt inserted through the end of the jack member. Furthermore, in the present application's claims the latch is attached to the U-head plate, but in the cited patent the bolt is free of the U-head plate and must be inserted for attachment. Similarly, there is no notch in the cited patent as in the present invention. In the present application the claims include reference to a notch that is used in engaging the latch, which is unlike the Abraham et al. patent's device that does not disclose a notch for the engagement of a latch. The only possible equivalent to a notch in the Abraham et al. patent would be the

nut that is screwed onto the end of the bolt after the bolt is inserted into the end of the jack member. However, as stated above, a notch is a "cut, indentation, or slit in an object, surface, or edge." Therefore, just as a bolt is not equivalent to the latch described in the present invention, the nut of the bolt cannot be considered a notch because a notch by definition is a modification to the object whereas the nut is the object.

Finally, the Abraham et al. patent also does not contain the required 'base plate' of the present invention. The Examiner refers to the "latch having a tongue, (tip of 70), for engaging a base plate which may be captured within the channel of the U-head assembly." Although the Examiner does not label the base plate with a number, in the recitation it is noted that the base plate as intended is number 62 seen in Figure 2. However, Applicant respectfully disagrees that number 62, which is a ball joint rod end, is even remotely similar to the present invention's claimed base plate. The present invention's base plate is a rigid flat plate used in construction to maintain and support the shoring post, whereas the ball joint rod end was designed, due to the requirements of the device, to pivot about the bolt. In column 5 lines 6-15 the specification discloses the necessity of the ball joint rod end to have flexibility during installation. "The more common situation is that the two are installed at a slight offset. Some flexibility is thus required in connecting jack assembly between the brace and the beam, and the ball joint rod ends 62 provide this needed flexibility." (column 5, line 11-15) Therefore the cited reference is not prior art because it does not disclose all the elements of the application's claims and is specifically designed away from the inventiveness of the present application.

As stated above, the Abraham et al., reference cited by the Examiner is not the field of art of the present invention and does not teach the inventive aspect of the present invention, therefore, the Applicant respectfully argues that the reference is not a prior art reference. Similarly, the Markham reference cited by the Examiner should also be removed as a prior art reference. The Markham patent does not disclose the inventive latch and notch mechanism of the present invention and although the Markham patent is in the field of the art, it teaches the difficulties listed by the present invention as problems the present invention is attempting to overcome. The Markham patent does not constitute prior art.

The independent claims of the present application have been amended to more distinctly point out what the Applicant believe is the inventiveness of the application and accordingly, the purpose of the claimed invention is not taught or suggested by the cited references. Because the cited references, whether considered alone, or in combination with one another, do not teach nor suggest the purpose of the claimed invention, Applicant respectfully submits that the claimed invention, as amended, patentably distinguishes itself over the prior art, including the art cited merely of record.

Based on the foregoing, Applicant respectfully submits that its claims 1 and 8, as amended, are in condition for allowance at this time, patentably distinguishing over the cited prior art. Accordingly, reconsideration of the application and passage to allowance are respectfully solicited.

The Examiner is respectfully urged to call the undersigned attorney at (515) 288-2500 to discus the claims in an effort to reach a mutual agreement with respect to claim

limitations in the present application which will be effective to define the patentable subject matter if the present claims are not deemed to be adequate for this purpose.

Respectfully submitted,

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Kent A. Herink
Registration No. 31,025
DAVIS, BROWN, KOEHN,
SHORS & ROBERTS, P.C.
666 Walnut St., Suite 2500
Des Moines, Iowa 50309
Telephone: (515) 288-2500

ATTORNEYS FOR APPLICANT

1. (amended) A U-head assembly for rapid and secure attachment to a notched base plate of shoring apparatus, said assembly comprising:

a U-head plate having a channel for capturing the base plate of the shoring apparatus[;]$_2$

a latch attached to said U-head plate, said latch having a tongue for engaging the notch in the base plate of the shoring apparatus upon capture of the base plate of the shoring apparatus within said channel[.]; and

the latch providing for hand releasable attachment and removal of the U-head plate from the base plate.

8. (amended) A U-head assembly for rapid and secure attachment to a notched base plate of shoring apparatus, said assembly comprising:

a U-head plate having a first wall and a second wall with a base therebetween, and first and second L-shaped inwardly opposing extensions extending downwardly from said base thereby forming a channel for capturing the base plate of the shoring apparatus;

a latch attached to one of said extensions of said U-head plate, said latch having a tongue for engaging the notch of the base plate through a hole in one of said extensions upon capture of the base plate of the shoring apparatus within said channel[; and]$_2$

wherein said latch further comprises a spring biasing said tongue toward the notch of the base plate of the shoring apparatus and compression of said spring disengages said tongue from the notch of the base plate of the shoring apparatus[.]; and

the latch providing for hand releasable attachment and removal of the U-head plate from the base plate.